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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/757,561

01/13/2004

Jeremiah D. Quill

911-002.009-1

3021

4955 7590 01/31/2008

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EXAMINER

FRANTZ, JESSICA L

ART UNIT

PAPER NUMBER

3746

MAIL DATE

DELIVERY MODE

01/31/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/757,561

Applicant(s)

QUILL ET AL.

Examiner

Jessica L. Frantz

Art Unit

3746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other; _____ |

DETAILED ACTION

1. This Action is in response to the amendment received 11/21/2007. Currently claims 1-19 are currently pending. This Action is made FINAL.

Drawings

2. The drawings were received on 11/21/2007. These drawings are accepted.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, 8, 10-11, 16-17 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Lipe et al. 6,526,469. Lipe teaches the invention as claimed including a pumping device 6 comprising a motor 7 arranged in relation to a pumping assembly 9, the motor having a housing 7 and a shaft 12 extending therefrom for rotating an impeller 26 in the pumping assembly; a motor seal 17 arranged therein between the shaft and the housing; a pump seal 32 (upper seal 32 as shown in figure 1) arranged between the shaft and the pump assembly; and a third seal 32 (lower seal 32 as shown in figure 1) arranged between the motor seal and the pump seal and further in relation to the shaft for providing additional sealing protection for the motor seal wherein the pumping device further comprises a close coupled adaptor 8 (column 1, lines 69-71) arranged between the motor housing and the pumping assembly having the third seal arranged thereon wherein the third seal is located on the motor end of the adaptor and is a primary

sealing device. Lipe also teaches the pumping device is a close-coupled motor/centrifugal pump as clearly shown in figure 1.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 7, 15, 4, 12, 6, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lipe et al. 6,526,469 in view of Kutz et al. *"Mechanical Engineers' Handbook"*. Lipe teaches the claimed invention as discussed above, but fails to teach the following claimed limitations that are taught by Kutz: using labyrinth seals around the shaft because they permit shaft excursions without potentially catastrophic rub-induced rotor instability problems and are well suited for high speed application see Kutz p. 650, using lip seals around the shaft because they can be manufactured in a very compact and yet effective manner see Kutz p. 640, and using non-contact seals around the shaft because they are well suited for applications inducing extremely high-speeds and high pressures see Kutz p. 646. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the seals of Lipe with the seals of Kutz because labyrinth seals permit shaft excursions without potentially catastrophic rub-induced rotor instability problems and are well suited for high speed applications see Kutz p. 650, lip seals can be manufactured in a very compact and yet effective manner see Kutz p. 640, and non-contact seals are well

suited for applications inducing extremely high-speeds and high pressures (see Kutz p. 646.)

7. Claims 9 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lipe et al. 6,526,469 in view of Anderson U.S. 5,401,140. Lipe teaches the claimed invention as discussed above, but fails to teach the following claimed limitations that are taught by Anderson: positive displacement pumps are preferred in certain applications due to their ability to pump relatively thick and heavy materials see Anderson column 1, lines 28-40. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Lipe's invention to employ a positive displacement pump for applications requiring the pumping of relatively thick and heavy materials (see Anderson column 1, lines 28-40.)

8. Claims 5 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lipe et al. 6,526,469 in view of De Lange U.S. 5,277,545. Lipe teaches the claimed invention as discussed above, but fails to teach the following claimed limitations that are taught by De Lange: using magnetic seals around the shaft because they are generally non-contact and therefore are non-wearing see De Lange column 5, lines 33-41. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the seals of Lipe with the seals of De Lange because magnetic seals are generally non-contact and therefore are non-wearing (see De Lange column 5, lines 33-41.)

Response to Arguments

9. Applicant's arguments filed 11/21/2007 have been fully considered but they are not persuasive.

10. Applicant argues that Lipe fails to teach the third seal structure as claimed in the independent claims. Examiner respectfully disagrees. The independent claims as now articulated, are broad enough to encompass any such similar structure having three seals. The terms motor seal may mean nothing more than a seal close to the motor, a pump seal may be nothing more than a seal close to the pump, and a third seal in between the previous two can be any such sort of seal that falls between the motor and pump seal.

11. Applicant also argues that Lipe's O-Ring 17 is not further arranged in relation to the drive shaft for providing additional sealing for the motor seal. Examiner respectfully disagrees. As seal 17 of Lipe is in fact a seal provided for gas tightness of the chamber 18 in which motor seal 32 falls, it is providing additional sealing for the motor seal.

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

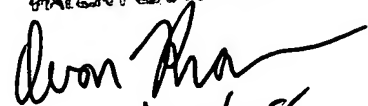
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessica L. Frantz whose telephone number is 571-272-5822. The examiner can normally be reached on Monday through Friday 8:30a.m.-5:00p.m. E.S.T..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Kramer can be reached on 571-272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


JF

DEVON C. KRAMER
PATENT EXAMINER


1/29/08